

IN THE CLAIMS:

1. (Currently Amended) A method of fabricating a semiconductor device, comprising:

forming a first insulation film on a substrate by a spin-on process;

applying a first curing process to said first insulation film at a temperature of 380 - 500°C over a duration of 5 – 180 seconds; [[and]]

forming a second insulation film directly on said first insulation film by a spin-on process; and

applying a second curing process to said first insulation film and said second insulation film.

2. (Previously Presented) The method as claimed in claim 1, wherein said first insulation film comprises an organic material having a specific dielectric constant of 3.0 or less.

3. (Previously Presented) The method as claimed in claim 1, wherein said first insulation film comprises an organic material of aromatic group.

4. (Previously Presented) The method as claimed in claim 1, wherein said first insulation film is formed of a spin-on film selected from the group consisting of an SiNCH film, an SiOCH film, an organic SOG film, and an HSQ film.

5. (Previously Presented) The method as claimed in claim 1, wherein said second insulation film comprises an organic material having a specific dielectric constant of 3.0 or less.

6. (Previously Presented) The method as claimed in claim 1, wherein said second insulation film comprises an organic material of aromatic group.

7. (Previously Presented) The method as claimed in claim 1, wherein said second insulation film is formed of a spin-on film selected from the group consisting of an SiNCH film, an SiOCH film, an organic SOG film, and an HSQ film.

8. (Previously Presented) The method as claimed in claim 1, wherein said curing process is conducted at a temperature between 380 – 500°C over a duration of 10 – 150 seconds.

9. (Previously Presented) The method as claimed in claim 1, wherein said curing process is conducted at a temperature between 400 - 470°C over a duration of 10 – 150 seconds.

10. (Currently Amended) ~~The method as claimed in claim 1,~~
A method of fabricating a semiconductor device, comprising:
forming a first insulation film on a substrate by a spin-on process;
applying a curing process to said first insulation film at a temperature of 380 - 500°C
over a duration of 5 – 180 seconds; and
forming a second insulation film on said first insulation film by a spin-on process;
wherein said curing process is conducted such that there is formed an intermixing layer between said first and second films.

11. (Currently Amended) A method of fabricating a semiconductor device,
comprising:
forming a first insulation film on a substrate by a spin-on process;
applying a first curing process to said first insulation film at a temperature of 380 - 500°C over a duration of 5 – 180 seconds;
forming a second insulation film directly on said first insulation film by a spin-on process;
applying a second curing process to said first insulation film and said second insulation film;
patterning said second insulation film to form an opening therein; and
etching said first insulation film while using said second insulation film as a mask.

12. (Previously Presented) The method as claimed in claim 11, wherein said first insulation film comprises an organic material having a specific dielectric constant of 3.0 or less.

13. (Previously Presented) The method as claimed in claim 11, wherein said first insulation film comprises an organic material of aromatic group.

14. (Previously Presented) The method as claimed in claim 11, wherein said first insulation film is formed of a spin-on film selected from the group consisting of an SiNCH film, an SiOCH film, an organic SOG film, and an HSQ film.

15. (Previously Presented) The method as claimed in claim 11, wherein said second insulation film comprises an organic material having a specific dielectric constant of 3.0 or less.

16. (Previously Presented) The method as claimed in claim 11, wherein said second insulation film comprises an organic material of aromatic group.

17. (Previously Presented) The method as claimed in claim 11, wherein said second insulation film is formed of a spin-on film selected from the group consisting of an SiNCH film, an SiOCH film, an organic SOG film, and an HSQ film.

18. (Previously Presented) The method as claimed in claim 11, wherein said curing process is conducted at a temperature between 380 – 500°C over a duration of 10 – 150 seconds.

19. (Previously Presented) The method as claimed in claim 11, wherein said curing process is conducted at a temperature between 400 - 470°C over a duration of 10 – 150 seconds.

20. (Currently Amended) The method as claimed in claim 11, ~~wherein said curing process is conducted such that there is formed an intermixing layer between said first and second films~~ 10, further comprising:

patterning said second insulation film to form an opening therein; and
etching said first insulation film while using said second insulation film as a mask.

21. (New) A method of fabricating a semiconductor device having a layered structure including plurality of insulation layers, comprising:

applying a first curing process to a first insulation layer forming one of said plurality of insulation layers;

forming one or more insulation layers constituting said plurality of insulation layers on said first insulation layer to form said layered structure such that at least said first insulation layer and a next insulation layer make direct contact with each other; and
applying a second curing process to said layered structure.

22. (New) The method as claimed in claim 21, wherein said layered structure includes insulation films that comprise organic material having a specific dielectric constant of 3.0 or less.

23. (New) The method as claimed in claim 21, wherein said insulation films comprise organic material of aromatic group.

24. (New) The method as claimed in claim 21, wherein said insulation films are formed of a spin-on film selected from the group consisting of an SiNCH film, an SiOCH film, an organic SOG film, and an HSQ film.

25. (New) The method as claimed in claim 21, wherein said curing process is conducted at a temperature between 380 - 500°C over a duration of 10 – 150 seconds.

26. (New) The method as claimed in claim 21, wherein said curing process is conducted at a temperature between 400 - 470°C over a duration of 10 – 150 seconds.

27. (New) The method as claimed in claim 21, wherein said second curing process is conducted such that there is formed an intermixing layer between said insulation films forming said layered structure.